

Animal Adaptations

Performance Task

Introduction

Animal adaptations are the important changes that have occurred in animals over time that have helped them stay alive and survive in their environments. An environment is the setting of where we live with plants and animals. You are working for a visitor center in which your job is to tell the people who visit about the different kinds of environments on our Earth. People come to the visitor center looking for information that might help them choose where they want to go visit. Your job is to tell the visitors all about the animals and local wildlife that live in that area. It will be helpful to study the different adaptations that animals have had to make in order to understand the animal and the environment.

Big Idea / Essential Questions

Big Idea

- Environments are full of different types of plants and animals that have adapted to their environment.
- Humans must be able to adapt to their environment to survive.

Essential Questions

- What do humans do to stay protected and alive in their environment?

G.R.A.S.P.

Goal

Your goal is to teach people about animals and their adaptations.

Role

You are a park ranger working at a local visitors center. One of your jobs is to study the changes animals make that help them live so that you can educate people about animals and their environments.

Audience

You will be giving information to all different types of people. People of all ages and backgrounds come to visitor centers looking for information and facts about different places to visit.

Situation

Animal adaptations are the important changes that have occurred in animals over time that have helped them stay alive and survive in their environments. An environment is the setting of where we live with plants and animals. You are working for a visitor center in which your job is to tell the people who visit about the different kinds of environments on our Earth. People come to the visitor center looking for information that might help them choose where they want to go visit. Your job is to tell the visitors all about the animals and local wildlife that live in that area. It will be helpful to study the different adaptations that animals have had to make in order to understand the animal and the environment.

Products

1. Illustration

suggested starting product:

Illustrate a picture of an animal that lives in your environment. Be sure to label your illustration and give it a title.

- What animals live in your environment?
- What does that animal look like?
- What do those animals need to survive?

Illustration - Animal Adaptations

Achievement Levels	1	2	3
Illustration (x1)	Illustration and title are unclear and are not connected to the concept.	Illustration and title are somewhat clear and demonstrate minimal connection to the concept.	Illustration and title are clear and demonstrate some connection to the concept.

2. Brochure

Create a brochure on the animal adaptations in a particular environment. This brochure will highlight the adaptations that have helped these animals survive. Your brochure should contain at least five animals that live in the environment. (Be sure to be specific in naming the type of adaptation it is, it could be physical or behavioral.) Be sure to include a variety of pictures of the animals you choose.

- What is an environment?
- What is an animal adaptation?
- Why do animals have to adapt to their environment?
- How do humans adapt to their environment?

Brochure - Animal Adaptations

Achievement Levels	1	2	3
Brochure Content (x2)	Brochure includes one or fewer animals found in the ecosystem. Adaptations are not listed or not accurate.	Brochure includes two or three animals in the ecosystem. Adaptations are listed for each.	Brochure includes four animals in the ecosystem. Adaptations are listed for each.
Animal Behaviors	Product demonstrates minimal understanding and does not provide any	Product demonstrates some understanding with a few examples of	Product demonstrates understanding and provides examples of physical or

Achievement Levels	1 examples of physical or behavioral animal adaptations.	2 physical or behavioral animal adaptations.	3 behavioral animal adaptations.
Animal Adaptations (x1)	Brochure minimally demonstrates an understanding that animals use their body parts in different ways to help them survive and grow in their environments.	Brochure somewhat demonstrates an understanding that animals use their body parts in different ways to help them survive and grow in their environments.	Brochure demonstrates an understanding that animals use their body parts in different ways to help them survive and grow in their environments.
Labels and Information (x1)	Brochure is not very colorful and does not provide many labeled animal types or pictures.	Brochure is colorful and provides some labeled animal types or pictures.	Brochure is colorful and provides labeled animal types and pictures.

3. Chart

Make a chart of the different adaptation types (physical or behavioral) you found in your research of the animals within the environment. Use the chart to ask and answer questions about the total number of adaptations, how many are in each group (physical or behavioral) and how many more or less physical or behavioral adaptations you found.

- What are some physical adaptations of animals?
- What are some behavioral adaptations of animals?
- How do adaptations help animals?
- How many total adaptations did you find?
- How many were physical? How many were behavioral?
- How many more or less physical adaptations did you find compared to behavioral adaptations?

Chart - Animal Adaptations

Achievement Levels	1	2	3
Animal Behaviors (x1)	Product demonstrates minimal understanding and does not provide any examples of physical or behavioral animal adaptations.	Product demonstrates some understanding with a few examples of physical or behavioral animal adaptations.	Product demonstrates understanding and provides examples of physical or behavioral animal adaptations.
Chart Information (x1)	Chart does not include many labeled animal types or adaptations.	Chart includes some labeled animal types or adaptations.	Chart includes labeled animal types and adaptations.
Animal Adaptations (x1)	Student minimally understands that animals have to use their body parts in different ways to help them survive and grow in their environments.	Student somewhat understands that animals have to use their body parts in different ways to help them survive and grow in their environments.	Student understands that animals have to use their body parts in different ways to help them survive and grow in their environments.
Research (x1)	Student is not engaged in class research and does not actively participate in class and/or group activity.	Student is somewhat engaged in class research and somewhat participates in class and/or group activity.	Student is engaged in class research and actively participates in class and/or group activity.
Math (x1)	Student is unable to organize, represent and interpret data and/or use accurate addition and subtraction related to adaptation research.	Student organizes, represents and interprets data related to adaptation research using accurate addition and subtraction but may or may not be able to explain their thinking.	Student organizes, represents and interprets data related to adaptation research and can explain their thinking using accurate addition and subtraction.

4. Photostory/Adaptations

With your class or with the help of an adult, you are going to create a Photostory about the animal adaptations that you learned about. You will need to include photos of each animal along with a short description of that animal and its adaptation. Be sure to include which adaptations are found in young animals and which are found in adult animals.

- What are animal adaptations?
- How do adaptations help an animal live?
- What animal features help an animal survive?

Photostory - Animal Adaptations

Achievement Levels	1	2	3
Conventions (x1)	Few of the words are spelled correctly in the title, labels, and caption.	Most of the words are spelled correctly in the title, labels, and caption.	All familiar words are spelled correctly in the title, labels and caption. One or two scientific words may be misspelled.
Animal Research (x1)	Student minimally understands that all animals have different parts that they use in different ways for hearing, eating, grasping, feeding, or moving from place to place in order to protect themselves and survive.	Student somewhat understands that all animals have different parts that they use in different ways for hearing, eating, grasping, feeding, or moving from place to place in order to protect themselves and survive.	Student understands that all animals have different parts that they use in different ways for hearing, eating, grasping, feeding, or moving from place to place in order to protect themselves and survive.
Animal Adaptations (x1)	Student minimally demonstrates understanding and provides several examples of physical or behavioral animal adaptations.	Student demonstrates some understanding and provides several examples of physical or behavioral animal adaptations.	Student demonstrates understanding and provides several examples of physical or behavioral animal adaptations.
Research and Participation (x1)	Student is somewhat engaged and somewhat participates in class and/or group activity.	Student is engaged and actively participates in class and/or group activity.	Student is very engaged and actively participates in class and/or group activity.

5. Research Map

With the help of an adult, conduct research on the different animals in a given environment and their adaptations that help them survive. With the information make a map of the environment showing the different animals. Design symbols to represent the types of adaptations they have and create a map key.

- What is a map?
- What can we learn from maps?
- How many different environments can you find on a map?

Map - Animal Adaptations

Achievement Levels	1	2	3
Animal Adaptations (x1)	Student and/or product minimally demonstrates understanding that animals use their body parts in different ways to help them survive and grow in their environments.	Student and/or product somewhat demonstrates understanding that animals use their body parts in different ways to help them survive and grow in their environments.	Student and/or product demonstrates understanding that animals use their body parts in different ways to help them survive and grow in their environments.
Animal Behaviors	Product demonstrates minimal understanding and does not provide any	Product demonstrates some understanding with a few examples of	Product demonstrates understanding and provides examples of physical or

Achievement Levels	1 examples of physical or behavioral animal adaptations.	2 physical or behavioral animal adaptations.	3 behavioral animal adaptations.
Pictures, Symbols and Map Key (x1)	Product uses very few examples of pictures or symbols to enhance the captions or information.	Product uses some examples of pictures or symbols to enhance the captions or information.	Product uses examples of pictures and symbols to enhance the captions and information.
Map Drawing (x1)	Drawing is not colorful and does not include different animals or environments.	Drawing is somewhat colorful and may include different animals or environments.	Drawing is colorful and includes different animals and environments.
Research (x1)	Student is not engaged in class research and does not actively participate in class and/or group activity.	Student is somewhat engaged in class research and somewhat participates in class and/or group activity.	Student is engaged in class research and actively participates in class and/or group activity.

6. Model

You are going to create a model of an animal. You may use modeling clay or other helpful classroom material. This animal model will need to include physical features that will help it to survive in its environment. (Some examples of these features might be sharp teeth for eating other animals, large eyes to help see in the dark, or spines to help protect it from other creatures.) When you are finished you will be asked to explain the details of your model.

- What is an animal habitat?
- What are animal features?
- How do animals features help an animal live in their environment?

Model - Animal Adaptations

Achievement Levels	1	2	3
Animal Adaptations (x1)	Student minimally demonstrates understanding and provides several examples of physical or behavioral animal adaptations.	Student demonstrates some understanding and provides several examples of physical or behavioral animal adaptations.	Student demonstrates understanding and provides several examples of physical or behavioral animal adaptations.
Animal Structure and Function (x1)	Student minimally understands that all animals have different parts that they use in different ways for hearing, eating, grasping, feeding, or moving from place to place in order to protect themselves and survive.	Student somewhat understands that all animals have different parts that they use in different ways for hearing, eating, grasping, feeding, or moving from place to place in order to protect themselves and survive.	Student understands that all animals have different parts that they use in different ways for hearing, eating, grasping, feeding, or moving from place to place in order to protect themselves and survive.
Model (x1)	Model minimally represents an animal feature(s) that can function to solve a problem or serve a purpose.	Model somewhat represents an animal feature(s) that can function to solve a problem or serve a purpose.	Model represents how an animal feature(s) that can function to solve a problem or serve a purpose.
Model Explanation (x1)	Incomplete explanation provided.	Partial explanation provided that emphasizes animal features and knowledge supported by facts and details.	Explanation provided that emphasizes animal features and knowledge supported by facts and details.

7. Journal Prompt

suggested final product:

Tell me what you learned about animals and how they survive.

- What have you learned about animals in their environments?
- What do animals need in their environments?
- What are some reasons that animals adapt to their environments?

Journal Prompt - Animal Adaptations

Achievement Levels	1	2	3
Conventions (if journal response is written) (x1)	Few sight words are spelled correctly and lacks phonetic construction of unknown words. No capitalization or punctuation used.	A majority of sight words are spelled correctly. Demonstrates an attempt at phonetic construction of unknown words. Minimal capitalization and/or simple punctuation are used.	All sight words are spelled correctly. Demonstrates success in phonetic construction of unknown words. Some correct capitalization and/or punctuation are used.
Content (can be orally dictated) (x1)	Response contains a limited amount of accurate, factual information.	Response contains some accurate, factual information about the topic.	Response contains mostly accurate, factual information about the topic.
Animal Structure and Function (x1)	Student minimally understands that all animals have different parts that they use in different ways for hearing, eating, grasping, feeding, or moving from place to place in order to protect themselves and survive.	Student somewhat understands that all animals have different parts that they use in different ways for hearing, eating, grasping, feeding, or moving from place to place in order to protect themselves and survive. .	Student understands that all animals have different parts that they use in different ways for hearing, eating, grasping, feeding, or moving from place to place in order to protect themselves and survive.